REMARKS

This paper is submitted in reply to the Office Action dated November 8, 2001, within the three-month period for response. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 11-17 were rejected under 35 U.S.C. § 112, second paragraph, and claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,375,206 to Hunter et al. in view of McGilton et al., Introducing the UNIX System, R.R. Donnelley & Sons Company, pages 515-521 (1983). Moreover, the disclosure was objected-to based upon an informality.

Applicants respectfully traverse the Examiner's rejections to the extend they are maintained.

Now turning to the subject Office Action, and in particular to the objections to the disclosure, the Examiner will note that the paragraphs beginning at page 1, line 4, and page 6, line 30 have been amended to insert the appropriate serial numbers, as well as to update the status of one of the related cases. Reconsideration and withdrawal of the objection to the disclosure are therefore respectfully requested.

Next, claims 11-17 were rejected as being indefinite, as the Examiner was of the belief that in claim 11, it was unclear if line 6 referred to the first or second program. The Examiner will note that claim 11 has now been amended to clarify that the program referred to in line 6 is the "second" program. Applicants respectfully submit that the clarification to this claim now renders this claim sufficiently definite. Reconsideration and withdrawal of the §112 rejection are therefore respectfully requested.

Next in the subject Office Action, claims 1-20 were rejected as being obvious in view of Hunter et al. and McGilton et al.

As an initial matter, Applicants wish to thank the Examiner for the consideration granted in the telephone interview between the Examiner and the undersigned on January 23, 2002. In the interview, the concepts of logical partitions and UNIX file partitions were generally discussed.

Turning first to claim 1, this claim recites a method of managing a concurrent use software license in a logically-partitioned computer, which includes tracking concurrent uses of the computer program across a plurality of logical partitions in a logically-partitioned computer, and selectively denying a request to use the computer program in a first logical partition if permitting the requested use would violate a concurrent use software license associated with the computer program.

As noted at pages 2-3 of the application, logical partitioning refers to the concept of executing multiple, independent "virtual" computers on a single physical machine. With logical partitioning, each partition typically executes a separate operating system, and from the perspective of users and from the software executing on a logical partition, operates in the same manner as a computer that does not utilize logical partitioning. By doing so, applications and operating systems need not be specifically designed for use on logically-partitioned computers.

Moreover, as discussed at page 2 of the application, often conventional license managers rely on the use of software keys that are tied to particular machine identifiers. In a logically-partitioned computer, however, multiple logical partitions may share the same machine identifier, as all execute on the same underlying hardware platform. Therefore, there is often no way to distinguish applications running on different partitions from the perspective of system-wide license management.

Claim 1 is therefore directed to a method of managing concurrent use software license in a logically-partitioned computer in which concurrent uses of a computer program are tracked across a plurality of logical partitions. The prior art cited by the Examiner, Hunter et al. and McGilton et al., do not disclose or suggest this claimed feature of the invention.

In particular, Hunter et al. is directed to a license manager for concurrent use licenses; however, there is no disclosure or suggestion in the reference to track uses of a licensed program across multiple partitions. Moreover, as the license management functionality disclosed in Hunter et al. is shown as an application that relies on an underlying operating system (see, e.g.,

Fig. 1), were the Hunter et al. license manager installed on a logically-partitioned computer, the license manager would be unable to detect usages of licensed applications on other logical partitions.

The Examiner acknowledges that Hunter et al. does not specifically disclose a plurality of logical partitions. Instead, the Examiner relies on McGilton et al. for allegedly disclosing a UNIX computer having multiple partitions, or file systems.

As discussed by Applicants' representative in the aforementioned telephone interview, from a reading of McGilton et al., it does not appear that the partitions referred in the reference relate to logical partitions or other forms of virtual computers. Nonetheless, even if McGilton et al. did disclose a configuration analogous to logical partitioning or virtual computers, the reference still does not disclose or suggest tracking concurrent usages of a licensed program across multiple partitions. As such, Applicants respectfully submit that McGilton et al. fails to supply the necessary disclosure that is missing from Hunter et al.

At most, even assuming arguendo that McGilton et al. discloses a logically-partitioned computer, the proposed combination of Hunter et al. and McGilton et al. could be read to suggest only that the Hunter et al. application-level license manager (e.g., block 122 in Fig. 1) could be installed on a logically-partitioned computer such as the computer discussed in McGilton et al. However, as discussed above, doing so would result in the Hunter et al. license manager being installed within a logical partition, and thus unaware of the usages of programs in other logical partitions. As such, the Hunter et al. license manager as disclosed would be unable to track usages of a program across multiple partitions. The proposed combination therefore falls short of suggesting Applicants' claimed invention.

Moreover, taking that neither reference suggests tracking uses of a program across multiple logical partitions, it would appear that the only motivation for combining these references in the manner suggested by the Examiner would be found in Applicants' disclosure. As such, Applicants respectfully submit that any rejection based upon Hunter et al. and McGilton et al. would necessarily rely on improper hindsight.

Applicants respectfully submit that there simply is no motivation in the art to track the concurrent usages of a licensed program across multiple logical partitions in a computer system. Accordingly, Applicants respectfully submit that claim 1 is non-obvious over the references cited by the Examiner. Reconsideration and allowance of claim 1, as well as claims 2-9 which depend therefrom, are respectfully requested.

Next, as to independent claims 10 and 19, each of these claims likewise recites the tracking of concurrent uses of a licensed program across a plurality of logical partitions. Therefore, for the same reasons as presented above with respect to claim 1, claims 10 and 19 are also non-obvious over the prior art of record. Reconsideration and allowance of these claims, as well as of claims 11-17 and 20 which depend therefrom, are therefore respectfully requested.

Finally, as to independent claim 18, this claim recites the tracking of concurrent uses of a computer program across a plurality of logical partitions, similar to the other independent claims pending in this case. As such, the claim is patentable for the reasons outlined above. Moreover, claim 18 additionally recites a partition manager through which the concurrent uses are tracked, and a plurality of license managers, each of which being resident in an associated logical partition. Applicants respectfully submit that neither Hunter et al. nor McGilton et al. disclose or suggest this arrangement of license managers with respect to a partition manager. Accordingly, reconsideration and allowance of claim 18 are respectfully requested.

In summary, Applicants respectfully submit that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the

undersigned at (513) 241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

24 Jan 2002
Date

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Version with Markings to Show Changes Made

In the Specification:

The paragraph beginning at page 1, line 4 has been amended as follows:

This patent application is related to the following patent applications: U.S. Patent Application RO999-021, entitled "Apparatus and Method for Specifying Maximum Interactive Performance in a Logical Partition of a Computer System Independently from the Maximum Interactive Performance in Other Partitions," serial no. 09/314,541 [_____] filed May 19, 1999 by Armstrong et al.; U.S. Patent Application RO999-022, entitled "Processor Reset Generated via Memory Access Interrupt," serial no. 09/314,769 [_____] filed May 19, 1999 by Armstrong et al.; U.S. Patent Application RO999-024, entitled "Event-Driven Communications Interface for Logically-Partitioned Computer," serial no. 09/314,187 [_____] filed May 19, 1999 by Armstrong et al. (now issued as U.S. Patent No. 6,279,046); and U.S. Patent Application RO999-025, entitled "Logical Partition Manager and Method," serial no. 09/314,214 [_____] filed May 19, 1999.

The paragraph beginning at page 6, line 30 has been amended as follows:

In the illustrated implementation, logical partition 40 operates as a primary partition, while logical partitions 42 and 44 operate as secondary partitions. A primary partition in this context shares some of the partition management functions for the computer, such as handling the powering on or powering off of the secondary logical partitions on computer 10, or initiating a memory dump of the secondary logical partitions. As such, a portion of partition manager 46 is illustrated by primary partition control block 50, disposed in the operating system 52 resident in primary partition 40. Other partition management services, which are accessible by all logical partitions, are represented by shared services block 48. Implementation of partition management

functionality within a primary logical partition is described, for example, in U.S. Patent Application RO999-025, entitled "Logical Partition Manager and Method," serial no. 09/314,214 [_____] filed May 19, 1999, which is incorporated by reference herein. However, partition management functionality need not be implemented within any particular logical partition in other implementations consistent with the invention.

In the Claims:

Claim 11 has been amended as shown below. The currently-pending claims, showing the amendments made herein, are as follows:

1. A method of managing a concurrent use software license in a logically partitioned computer, the method comprising:

(a) tracking concurrent uses of a computer program across a plurality of logical partitions in the logically partitioned computer; and

(b) selectively denying a request to use the computer program in a first logical partition if permitting the requested use would violate a concurrent use software license associated with the computer program.

2. The method of claim 1, wherein tracking concurrent uses of the computer program is performed by a partition manager accessible by the plurality of logical partitions, the method further comprising accessing the partition manager in response to the request to use the computer program in the first logical partition.

3. The method of claim 2, wherein tracking concurrent uses of the computer program includes maintaining a global count of the number of concurrent uses of the computer program across the plurality of logical partitions.

4. The method of claim 3, further comprising receiving the global count from the partition manager in response to the access thereto, and wherein selectively denying the request includes denying the request when the global count is at least equal to a maximum number of concurrent uses permitted by the concurrent use software license.

5. The method of claim 3, further comprising:

(a) incrementing the global count whenever a request to use the computer program is granted; and

(b) decrementing the global count whenever a use of the computer program is terminated.

6. The method of claim 5, wherein each logical partition includes a local license manager, and wherein accessing the partition manager in response to the request is performed by the local license manager in the first logical partition.

7. The method of claim 6, wherein each of incrementing and decrementing the global count includes passing a program identifier to the partition manager.

8. The method of claim 6, further comprising determining in the local license manager for the first logical partition whether permitting the requested use would violate the concurrent use software license.

9. The method of claim 1, further comprising tracking concurrent uses of a plurality of computer programs across the plurality of logical partitions.

10. An apparatus, comprising:

(a) a logically partitioned computer including a plurality of logical partitions; and

(b) a first program resident in the computer, the first program configured to manage a concurrent use software license for a second program in the computer by tracking concurrent uses of the second program across the plurality of logical partitions, and selectively denying a request to use the second program in a first logical partition if permitting the requested use would violate the concurrent use software license.

11. (Once Amended) The apparatus of claim 10, wherein the first program includes:

(a) a partition manager accessible by the plurality of logical partitions and configured to track the concurrent uses of the second program across the plurality of logical partitions; and

(b) a license manager configured to access the partition manager in response to the request to use the [computer] second program in the first logical partition.

12. The apparatus of claim 11, wherein the partition manager is configured to track concurrent uses of the second program by maintaining a global count of the number of concurrent uses of the second program across the plurality of logical partitions.

13. The apparatus of claim 12, wherein the license manager is further configured to receive the global count from the partition manager in response to the access thereto, and to selectively deny the request when the global count is at least equal to a maximum number of concurrent uses permitted by the concurrent use software license.

14. The apparatus of claim 12, wherein the license manager is further configured to increment the global count whenever a request to use the second program is granted, and to decrement the global count whenever a use of the second program is terminated.

15. The apparatus of claim 14, wherein the license manager is resident in the first logical partition, and wherein each additional logical partition includes an associated local license manager.

16. The apparatus of claim 14, wherein the global count is associated with a program identifier for the second program, and wherein the license manager is configured to pass the program identifier to the partition manager when accessing the partition manager.

17. The apparatus of claim 11, wherein the partition manager is further configured to track concurrent uses of a plurality of programs across the plurality of logical partitions.

18. An apparatus, comprising:

(a) a plurality of logical partitions;

(b) a partition manager configured to track concurrent uses of a computer program across the plurality of logical partitions; and

(c) a plurality of license managers, each license manager resident in an associated logical partition among the plurality of logical partitions, and each license manager configured to access the partition manager responsive to a request to use the computer program in the associated logical partition.

19. A program product, comprising:

(a) a first program configured to manage a concurrent use software license for a second program in a logically-partitioned computer by tracking concurrent uses of the second program across a plurality of logical partitions in the logically-partitioned computer, and selectively denying a request to use the second program in a first logical partition among the plurality of logical partitions if permitting the requested use would violate the concurrent use software license; and

(b) a signal bearing medium bearing the first program.

20. The program product of claim 19, wherein the signal bearing medium includes at least one of a recordable medium and a transmission-type medium.